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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,275	03/25/2005	Hans-Juergen Oberle	081276-1063-00	2135
23409 7590 06/20/2007 MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE Suite 3300 MILWAUKEE, WI 53202			EXAMINER PILKINGTON, JAMES	
			ART UNIT 3682	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/529,275

Applicant(s)

OBERLE ET AL.

Examiner

James Pilkington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Clm 1, the phrase "by means of an elastic element embodied as a single uniform member of component as a bent punched part to form a wedge-shaped component" (lines 8-11) is indefinite. It is not clear to the examiner what the applicant means by "embodied as a single uniform member of component as a bent punched part." Can two objects that are crimped together be a single uniform member, must there be a rigid connection (weld or other material to material bond) or must the parts be monolithic (one-piece)? What structure of a bent punched part differentiates the instant applicant over the prior art? (see Response to Arguments below). For the purpose of examination the examiner is viewing the phrase "single uniform member" to mean there must be a rigid material to material bond between components to make them uniform.

Re clm 22, the phrase "saw-tooth-like" renders the claim indefinite because it is unclear as to how much like saw tooth the element needs to be to meet the limitations. "Formed as a series of steps" does not clarify what is meant by the term "saw-tooth-like." It is understood that saw teeth are nothing more than a series of steps but what do the steps look like? Is the point of the step angled forward or backward? Or are the

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teeth made with a points of the teeth being centered over each step? What is meant by the word "like," how much "like" any of the profiles disclosed above do the teeth have to be?

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13, 18, 20, 21 and 23-28, are rejected under 35 U.S.C. 102(b) as being anticipated by Giandinoto et al, USP 3,848,477

Re clm 21, Giandinoto discloses a gear drive unit (Fig 1) with a(n):

- Gear housing (R4/R5)
- Shaft (10)
- Axial stopping face (24)
- Counter stopping face (30)
- Plane (@ character 24)
- Angle of inclination (see Figure 1)
- Component (26)
- The component (26) being displaced radially by a pre-stressed elastic element (36)
- The component (26) is embodied to be a 2-step wedge (Figs 3 and 4; C2-C3) having two inclined stopping surfaces (slot 25 creates two wedge

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shapes) connected via an intermediate surface (hatched making in Figures 3 and 4 near 26a/26b) that runs parallel to the plane (vertical sides of intermediate surface run parallel to the plane)

Re clm 13, the elastic element (36) is embodied to be one piece with the component (26) (Fig 2). Elastic element (36) is fixed to the component (26) via part 34 making the elastic element (36) and component (26) one part and according to Merriam-Webster's Collegiate Dictionary: 10th Edition the word one is defined as "being a single unit or thing."

Re clms 18 and 20, the component (26) is embodied to be one piece with the one stopping faces (24,30), as a stopping element.

Re clm 23, the component (26) is embodied to be U-shaped (Figs 3 and 4; C2-C3) and surrounds a stopping sleeve (42).

Re clm 24, the elastic member (36) is embodied as a ring (a spring is multiple rings connected together) so that it can be compressed and expanded radially (as a spring is compressed there is some radial expansion (see paragraph 6 above).

Re clm 25, the shaft (10) features a fore part (22) and/or at least one collar (14), with which the shaft is supported on the gearing housing via the component.

Re clm 26, the shaft (10) features a worm toothing or thread toothing (R1), and engages in an inside thread (on R2).

Re clm 27, the component (26) can be displaced radially to the longitudinal axis by means of a pre-stressed elastic element (36).

Re clm 28, the elastic element (36) is supported on a covering (38) of the gear housing (R4/R5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 15 -17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giandinoto et al '477 in view of Zoino, USP 4,212,379.

Re clms 15-17, Giandinoto discloses all of the claimed subject matter as described above.

Giandinoto does not disclose at least one of the stopping faces being embodied as cone-shaped and having stair step profile (clm 15) or annular stair steps (clm 16 and 17).

Zoino teaches at least one of the stopping faces (27) being embodied as cone-shaped and having stair steps (58) for the purpose of allowing a load (force) to be taken at a gradually increasing rate those preventing sudden shock or strain in the system (C1). It is to be noted that a conical clutch and the stopping system in the instant application both relay on friction as a means of varying an output force.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Giandinoto and provide at least one of the

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stopping faces being embodied as cone-shaped and having stair steps, as taught by Zoino, for the purpose of allowing a load (force) to be taken at a gradually increasing rate those preventing sudden shock or strain in the system.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Giandinoto et al '477 in view of Gunner et al, EP0563410.

Re clms 22, Giandinoto discloses all of the claimed subject matter as described above.

Giandinoto does not disclose at least one of the stopping faces having a saw-tooth profile.

Gunner teaches at least one stopping face (41) having a saw-tooth profile (Fig 2) for the purpose of providing better interaction between surfaces and to reduce the wear between the wedge faces.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Giandinoto and provide a stopping face with a saw-tooth profile, as taught by Gunner, for the purpose of providing better interaction between surfaces and reduce the wear between the wedge faces.

8. Claims 1, 5-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giandinoto, USP 3,848,477.

Giandinoto discloses a gear drive unit (Fig 1) with a(n):

- Gear housing (R4/R5)

- Shaft (10)
- Axial stopping face (24)
- Counter stopping face (30)
- Plane (@ character 24)
- Angle of inclination (see Figure 1 below)
- Component (26)
- An elastic element (36)

Giandinoto does not disclose that the elastic element is a single uniform member with the component.

Since the applicant is silent as to any criticality for making the elastic element a single uniform member with the component (rigid material to material bond) it would have been obvious to one having ordinary skill in the art at the time of the invention to rigidly connect (weld) the two components together to form a single uniform member, since it has been held that forming in one part an article which has formerly been formed in two parts involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164.

Re clm 5, the component (26) is embodied to be one piece with the one stopping faces (24,30).

Re clm 6, the component (26) is embodied to be U-shaped (Figs 3 and 4; C2-C3) and surrounds a stopping sleeve (42).

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Re clm 7, the elastic member (36) is embodied as a ring (a spring is multiple rings connected together) so that it can be compressed and expanded radially (as a spring is compressed there is some radial expansion (see paragraph 6 above).

Re clm 8, the component (26) is embodied to be a 2-step wedge (Figs 3 and 4; C2-C3).

Re clm 9, the shaft (10) features a fore part (22) and/or at least one collar (14).

Re clm 10, the shaft (10) features a worm toothing or thread toothing (R1), and engages in an inside thread (on R2).

Re clm 11, the component (26) can be displaced radially to the longitudinal axis by means of a pre-stressed elastic element (36).

Re clm 12, the elastic element (36) is supported on a covering (38) of the gear housing (R4/R5).

Re clm 14, the component (26) is embodied together with the elastic element (36) as a wedge-shaped wavy leaf spring.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Giandinoto et al '477 in view of Gunner et al, EP0563410.

Re clms 2, Giandinoto discloses all of the claimed subject matter as described above.

Giandinoto does not disclose at least one of the stopping faces having a saw-tooth profile.

Gunner teaches at least one stopping face (41) having a saw-tooth profile (Fig 2) for the purpose of providing better interaction between surfaces and to reduce the wear between the wedge faces.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Giandinoto and provide a stopping face with a saw-tooth profile, as taught by Gunner, for the purpose of providing better interaction between surfaces and reduce the wear between the wedge faces.

10. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giandinoto et al '477 in view of Zoino, USP 4,212,379.

Re clms 3 and 4, Giandinoto discloses all of the claimed subject matter as described above.

Giandinoto does not disclose at least one of the stopping faces being embodied as cone-shaped and having stair step profile (clm 3) or annular stair steps (clm 4).

Zoino teaches at least one of the stopping faces (27) being embodied as cone-shaped and having stair steps (58) for the purpose of allowing a load (force) to be taken at a gradually increasing rate those preventing sudden shock or strain in the system (C1). It is to be noted that a conical clutch and the stopping system in the instant application both relay on friction as a means of varying an output force.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Giandinoto and provide at least one of the stopping faces being embodied as cone-shaped and having stair steps, as taught by

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Zoino, for the purpose of allowing a load (force) to be taken at a gradually increasing rate those preventing sudden shock or strain in the system.

Response to Arguments

11. Applicant's arguments with respect to claims independent claims 1 and 21 have been considered but are moot in view of the new ground(s) of rejection.

In view of the applicant arguments about Giandinoto showing separate parts and not a single uniform member it is believed that it is the applicant's intent to argue that Giandinoto does not show a monolithic (one-piece) arrangement of the component with the elastic element. If this is the case the examiner suggests using the word "monolithic" or "one-piece" in the claim to better differentiate the instant application over the prior art.

To further distinguish the instant applicant over the prior art the examiner is also suggesting changing the phrase "embodied as"/"is embodied" found in claims 1, 4-8, 13-14, 16-18, 20-21, and 23-24 to the phrase "which is"/"which are" to positively claim that which the applicant regards as their invention.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Pilkington whose telephone number is (571) 272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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